ACTIVITIES AND ACCOMPLISHMENTS OF THE JOINT COMMITTEE ON ATOMIC ENERGY IN THE 90TH CONGRESS, FIRST SESSION (1967)

FOREWORD

The following report on the activities of the Joint Committee on Atomic Energy during the first session of the 90th Congress (1967) has been prepared at the direction of the Chairman for the information of the Congress, the Executive Branch, and the public.

The Joint Committee on Atomic Energy was first organized on August 2, 1946, and is a House-Senate Committee consisting of nine members from each body, of which no more than five from each body can be members of the same party. Following is a listing of the present membership:

John O. Pastore, Rhode Island, Chairman
Chet Holifield, California, Vice Chairman

Melvin Price, Illinois
Wayne N. Aspinall, Colorado
Thomas G. Morris, New Mexico
John Young, Texas
Craig Hosmer, California
William H. Bates, Massachusetts
John B. Anderson, Illinois
William M. McCulloch, Ohio

Richard B. Russell, Georgia
Clinton P. Anderson, New Mexico
Albert Gore, Tennessee
Henry M. Jackson, Washington
Bourke B. Hickenlooper, Iowa
George D. Aiken, Vermont
Wallace F. Bennett, Utah
Carl T. Curtis, Nebraska

The Joint Committee is one of the few committees established by statute, rather than by rule of each house, and is unique in several respects. For example, it is the only Joint Committee of the Congress with legislative functions, including the receipt and reporting of legislative proposals. The Committee is also charged by law with legislative responsibility as "watchdog" of the United States atomic energy program. As part of its responsibilities, the Committee follows closely the classified activities of executive agencies, including the Atomic Energy Commission and the Departments of Defense and State, concerning the military applications of atomic energy.

In all these activities, the Joint Committee on Atomic Energy as representative of Congress and the public seeks to assure the implementation of the following statutory policy expressed in the Atomic Energy Act of 1954:

> "...the development, use and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all tir es to the paramount objective of making the maximum contribution to the common defense and security..."

During the 90th Congress, first session, the Joint Committee met on a total of 74 different occasions, 49 of which were public and 25 of which were executive meetings.

A total of 12 publications consisting of hearings and Committee prints were published or are in the process of being printed by the Joint Committee in the first session of the 90th Congress. These publications include testimony taken in executive session with classified material deleted before printing. A list of these publications follows:

1967 (90th Cong., 1st Sess.)

AEC Authorizing Legislation, FY 1968:	
Part 1	Hearings Jan. 25, Feb. 7, 8, 9, and 28, 1967
Part 2	Hearings Mar. 14 and 15, 1967
Part 3	Hearings Feb. 28, Mar. 2 and 3, 1967
Atomic Energy Legislation Through the 90th Cong., 1st Session	Committee print (Dec. 1967)
LaCrosse Boiling Water Reactor Project	Hearing May 4, 1967 (available when printed)
Licensing and Regulation of Nuclear Reactors, Part I	Hearings Apr. 4, 5, 6, 20 and May 3, 1967
Licensing and Regulation of Nuclear Reactors, Part II	Hearings Sept. 12, 13 and 14, 1967 (available when printed)
Naval Nuclear Propulsion Program, 1967	Hearing Mar. 16, 1967 (In preparation)
Nuclear Propulsion for Major Fleet Escorts	Committee print (In preparation)
AEC Omnibus Legislation 1967	Hearings August 11, 15, and 24, 1967
Radiation Exposure of Uranium Miners	Hearings May 9, 10, 23, June 6, 7, 8, 9, July 26, 27, and August 8, and 10, 1967
Scope, Magnitude and Implications of the United States AEM Program	Hearings November 6 and 7, 1967 (available when printed)

I. LEGISLATIVE ACTIVITIES

A. Atomic Energy Commission Fiscal Year 1968 Authorization Act (Public Law 90-56).

In accordance with Section 261 of the Atomic Energy Act of 1954, as amended, the Joint Committee in 1967 reviewed the proposed Fiscal Year 1968 authorization for all appropriations to the Atomic Energy Commission.

Extensive hearings on the AEC's proposed authorization bill (S. 611; H.R. 3647) and proposed amendments thereto were held by the Joint Committee over a period of seven weeks beginning January 25, 1967, the day following delivery of the President's budget message. The Committee's hearings extended through March 16, 1967, and included review not only of the Commission's operating funds authorization but also its request for authorization of funds for plant and capital equipment obligations. Major items in the Commission's various programs were examined in depth during the hearings. In connection with those AEC programs which were not the subject of detailed Committee hearings, the Committee requested the Commission to submit statements for the record and to furnish written answers to questions. Several hearings--concerning the AEC's weapons program and the naval nuclear propulsion program--were held in executive session because they involved the review of classified information.

In addition to the hearings described above, related hearings were held before the Subcommittee on Research, Development, and Radiation concerning the scope and management of the proposed 200 Bev accelerator, and (in executive session) by the Subcommittee on Military Applications concerning nuclear weapons policy and special nuclear materials requirements.

All of the foregoing hearings, except for those held in executive session because of the classified nature of the subject matter, were published in three volumes under the title "AEC Authorizing Legislation, Fiscal Year 1968."

The hearings culminated in the introduction of "clean bills" by Chairman Pastore (S. 1963) and by Vice Chairman Holifield (H.R. 10918). These bills were reported in the Senate and House on June 23 and June 19, 1967, respectively (Senate Report No. 349, House Report No. 369), together with the separate views of Chairman Pastore, in which Senators Jackson and Aiken concurred, recommending against authorization of appropriations for the proposed 200 Bev accelerator project at this time.

(I. Legislative Activities, cont'd)

The recommended authorization bill, which amounted to about $4.4 million less than the Administration had requested, was passed without amendment by the Senate and House, and authorized appropriations for the Atomic Energy Commission for fiscal year 1968 in the amount of $2,633,876,000 as follows:

Operating Expenses	$2,164,843,000
Plant and Capital Equipment	469,033,000
Total Authorization	$2,633,876,000

Among the highlights of the Joint Committee report which accompanied the authorization bill were the following:

1. With respect to the Weapons Program, the Joint Committee recommended an increase of $15 million in the Commission's request for $700.5 million for weapons program operating funds. It was apparent to the Committee that a more intensive development and testing program than would be possible with the amount of money requested by the AEC was required if development of new weapons systems and their entry into production were to occur at a pace consistent with the national security. Since that time the decision has been made to deploy the "thin" antiballistic missile (ABM) system

2. In the Civilian Power Reactor Program, the Committee recommended authorization of $80 million in construction funds (beyond the previously authorized $7.5 million for architect-engineering) for the proposed Fast Flux Test Facility, a critically needed test facility for the sodium cooled fast breeder reactor program. The breeder reactor program, the program to which the Atomic Energy Commission is increasingly devoting its civilian nuclear power research and development funds, holds the promise of developing economically competitive nuclear reactors capable of supplying their own needs for fissile materials. Successful development and wide adoption of such self-sustaining reactors would have a tremendously beneficial impact on the energy resources of this nation.

The Committee also noted the continuing surge of orders by the nation's electric utility companies for nuclear powerplants of the type now being sold commercially. The continued rapid pace of nuclear powerplant procurements in 1966 and 1967, coupled with the extrapolation to much larger sized plants, caused the Committee to reemphasize to the designers, manufacturers and users of these plants the need for unparalleled attention to the details of design, construction and operation to assure that performance and safety requirements are fully met. In view of the planned major

(4. LEGISLATIVE ACTIVITIES, cont'd)

dependence on nuclear power to meet the nation's need for new generating capacity in the early 1970's, the industry must remain ever mindful that any significant delays or failures to meet required nuclear plant availability factors could have adverse effects on the availability of electric power in certain parts of the country. The Committee also emphasized the need for quality control in reactor design and construction to assure that the components and systems essential to the continued reliability of these plants are of high quality.

The Committee particularly commended the Commission for its continued efforts to "weed out" civilian reactor concepts not sufficiently promising to continue. In this connection the Commission, in line with the Committee's earlier comments and specific suggestions, reviewed the heavy water organic cooled reactor program and decided to terminate the program except for a modest heavy water reactor base R&D program which would maintain the option to exploit this type of reactor in the future if developments so dictate. The Committee firmly supports the Commission's policy of conducting periodic reviews to determine whether the technical and economic factors involved in a specific concept, when reviewed in relation to the potential of competing reactor systems, justify the expenditure of resources necessary to carry out the program. Such a policy should be a cornerstone of any efficient research and development program.

With respect to the Commission's program to develop reactors for space propulsion systems, the Committee voiced continued support of the Rover program and recommended approval of the full amount requested by the AEC for the program in fiscal year 1968. The AEC's fiscal 1968 budget request reflected a newly defined objective to develop a large nuclear rocket engine (NERVA II) having a thrust level of 200,000 to 250,000 pounds. At the same time the Committee recommended that the Commission undertake immediately to perform further intensive analyses to verify the true growth potential of the smaller nuclear rocket engine (NERVA I), with particular emphasis on clarifying the question of the versatility of such an engine in terms of meeting earlier unmanned mission requirements as well as subsequent manned missions.

3. As part of the Commission's Physical Research Program the Committee recommended authorization of $7,333,000 of the $10 million requested by the AEC for initial work on the proposed 200 Bev accelerator. The Committee also adopted without change a report of the Subcommittee on

II. LEGISLATIVE ACTIVITIES, cont'd)

Research, Development and Radiation concerning the scope and management of this national facility.[1/] Among other things, the report calls for the construction of this facility with greater design intensity and more experimental facilities than were provided for in the reduced scope accelerator proposed by the Executive Branch. The reduction in the scope of the accelerator proposed by the Executive Branch for budgetary (rather than technical) reasons was rejected on the grounds that to do so, in the knowledge that it would have to be modified to fuller scope once it entered into operation, would be false economy.

The Committee also recommended authorization of $50.3 million for construction of the Meson physics facility and $8.5 million for construction of a project designed to house and power the proposed Scyllac controlled fusion experimental device. Both of these projects would be located at the Los Alamos Scientific Laboratory.

4. The Committee expressed its deep concern that planned Plowshare excavation experiments, which comprise a significant part of the Commission's important program for development of Civilian Applications of Nuclear Explosives, have not been conducted. The Committee, recalling the assurances given to the Congress by the Executive Branch in 1963, prior to ratification of the Limited Nuclear Test Ban Treaty, that Plowshare cratering experiments could be performed notwithstanding existence of the Treaty, noted its belief that an overly strict interpretation is being placed on the Treaty by the Executive Branch. It urged the Executive Branch to get on with the task of developing the technology for civilian applications of nuclear explosives so that, pursuant to the President's offer made to the Eighteen-Nation Disarmament Conference, this country may make available to other nations nuclear explosive services for peaceful purposes under appropriate international safeguards.

The Committee also recommended authorization of the remaining funds ($1.5 million) necessary to carry out Project Gasbuggy, an experiment using nuclear explosives to demonstrate the feasibility of stimulating the production of natural gas by means of contained underground nuclear explosions. The previous year the Joint Committee had recommended, and Congress approved, an increase of $1.5 million in the Commission's fiscal year 1967 authorization bill to permit this promising

---

1/ Published as Appendix C in Senate Report No, 349 and House Report No. 369 on, respectively, S. 1963 and H.R. 10918, and in Part 1, hearings on "AEC Authorizing Legislation, Fiscal Year 1968."

(I. LEGISLATIVE ACTIVITIES, cont'd)

project to move forward. The detonation, conducted in cooperation with the El Paso Natural Gas Company and the Department of the Interior, was successfully carried out on December 10, 1967 in the low-permeability Pictured Cliff formation in northern New Mexico.

Final Action on the Bill

On June 29, 1967, the authorization bill was debated and passed in the House of Representatives by a voice vote, after a proposed amendment thereto to strike from it authorization of $7,333,000 for the 200 Bev accelerator had been defeated. On July 12, 1967 the Senate considered and passed the bill by a voice vote after a proposed amendment to the bill, to strike from it authorization of $7,333,000 for the 200 Bev accelerator, was defeated. The bill was then forwarded to the President and approved by him on July 26, 1967 as Public Law 90-56.

(I. LEGISLATIVE ACTIVITIES, cont'd)

B. AEC "Omnibus" Bill for 1967
(Public Law 90-190)

The AEC's omnibus bill for 1967 incorporated the major provisions of five separate legislative proposals submitted to the Joint Committee by the AEC, as well as two others originated by the Joint Committee and its members. The Committee took no further action on two items of proposed legislation submitted by the Executive Branch--one by the AEC and the other by the Department of Defense.

Public hearings were held on these matters on August 11, 15, and 24, 1967 before the Subcommittees on Communities and Legislation. These hearings were printed under the title "AEC Omnibus Legislation--1967." As the result of these hearings, and of four executive sessions of the Joint Committee, the Committee approved the introduction of identical "clean bills" (S. 2644 and H.R. 13934) and adopted a favorable Committee report thereon (S. Rept. No. 743, filed November 13, 1967; H. Rept. No. 911, filed November 9, 1967).

As reported by the Committee and approved by Congress, the bill:

--amends section 58 of the Atomic Energy Community Act of 1955 to revise the system of priorities applicable to the sale of apartment houses at Los Alamos, N. Mex. As amended, section 58 authorizes sale of these dwellings on a priority basis not only to housing cooperatives but to certain others as well;

--amends sections 91, 94, and 118 of the Community Act to authorize the AEC to continue to make assistance payments to the Cities of Oak Ridge, Tenn., and Richland, Wash., and to the Richland School District, and to state more explicitly the criteria for making such payments. Under the amendment, any contracts entered into by the AEC to provide such assistance after June 30, 1979, would be subject to the availability of appropriations. The amendments also provide that no appropriations shall be made to carry out the provisions and purposes of the Community Act unless previously authorized by legislation enacted by Congress;

--amends subsection 25 a. and section 28 of the Atomic Energy Act of 1954 to confer on the Director of the AEC's

(I. LEGISLATIVE ACTIVITIES, Cont'd.)

Division of Military Application the new title of Assistant General Manager for Military Application. The amendment also provides that the officer serving in the position shall have general or flag rank, and that his service shall be reimbursed by the Commission for his military pay and allowances;

--amends section 33 of the Atomic Energy Act of 1954 to provide certain additional authority for the AEC to perform research for others pertaining to the protection of public health and safety;

--amends subsection 41 b. of the Atomic Energy Act of 1954 to eliminate the requirement for determinations by the President of the quantities of special nuclear material to be produced under section 41, and the amounts to be available for distribution by the AEC pursuant to sections 53 and 54 of the act;

--amends subsection 53 f. of the Atomic Energy Act of 1954 to eliminate a reference to the Presidential determinations under subsection 41 b. of the act that no longer is applicable;

--effects technical amendments to the Atomic Energy Act, which do not make any substantive changes;

--amends section 5 of the EURATOM Cooperation Act of 1958 to authorize, first, the transfer of an additional 145,000 kilograms of contained uranium 235 to the European Atomic Energy Community, second, the transfer of an additional 1,000 kilograms of plutonium to Euratom, and third, the AEC to perform uranium enrichment services for Euratom;

--adds a new heading in the table of contents of the Atomic Energy Community Act of 1955, reflecting the amendment of that act by section 1 of the bill.

The omnibus bill was considered and passed in the Senate on November 15, 1967, and in the House on November 30, 1967. On December 14, the bill was approved by the President as P. L. 90-190.

II. AGREEMENTS FOR COOPERATION

Section 123 of the Atomic Energy Act of 1954 requires that agreements for cooperation in the peaceful uses of atomic energy be submitted to and lie before the Joint Committee for a period of thirty days while Congress is in session before becoming effective. Pursuant to this requirement four civil agreements were submitted to the Committee by the Department of State and the Atomic Energy Commission during 1967.

Of the four agreements considered by the Committee, three were new civilian power agreements under which the United States gave long-term assurances as to the availability of nuclear fuel for reactors constructed under the cooperating countries' atomic power programs. These agreements are with the countries of Australia, Norway, and South Africa. The fourth agreement submitted was an amendment to the research-type agreement for cooperation with the Republic of Colombia which extended the existing agreement for an additional 10 years.

Pursuant to the United States policy of transferring safeguards responsibilities to the International Atomic Energy Agency--a policy strongly supported by the Joint Committee--provision was made in the new Norwegian and Colombian agreements for bringing facilities in those countries receiving United States assistance under international safeguards. Australia and South Africa had previously agreed to the transfer to the IAEA of responsibility for applying safeguards to the facilities and materials transferred pursuant to their agreements with this country, and agreed to a continuation of that policy under their new agreements. The responsibility transferred to the IAEA entails periodic inspections of the facilities, equipment and materials involved to insure against the diversion of fissionable materials to military purposes.

III. INFORMATIONAL HEARINGS

A. LaCrosse Reactor Program--Revised Justification Data

The Subcommittee on Legislation met in public session on May 4, 1967, to review revised justification data concerning the LaCrosse Boiling Water Reactor Project submitted by the AEC in accordance with the requirements of the P. L. 85-162. 1/ Specifically, the Committee reviewed the reasons

---

1/ In accordance with Joint Committee practice the record of this single hearing will not be published in book form until it can be consolidated with the record of other hearings dealing with similar subject matters. During the interim, the record of this hearing is available to the public in transcript form at the Joint Committee offices. Moreover, interested persons will find the revised justification data submitted for this project set forth beginning at page 1340 of Part 1, "AEC Authorizing Legislation, Fiscal Year 1968 (1967)."

for the schedule slippages and cost increases which have marked the progress of the project.

Testimony was recieved from representatives of the Atomic Energy Commission, the Dairyland Power Cooperative of LaCrosse, Wisconsin (the electrical utility involved in the cooperative arrangement), and the Allis Chalmers Manufacturing Company (the reactor designer). The reasons for the increase in AEC costs from $9,211,000, which were the estimated costs in 1961, to presently estimated costs of $13,314,000, were explored. Plans for further work on the project were also reviewed in detail, including the schedule for plant operations.

B. Radiation Exposure of Uranium Miners

On May 9, 10, 23, June 6, 7, 8, 9, July 26, 27 and August 8 and 10, 1967 the Joint Committee's Subcommittee on Research, Development, and Radiation conducted public hearings on the subject of radiation exposure of uranium miners. The extensive hearings were conducted as part of the subcommittee's continuing study of the problems of radiation exposure and its effect upon humans.

Witnesses included representatives of Federal and State departments and agencies having responsibilities in this matter, labor unions, and mining companies, as well as radiation protection experts and medical doctors. Two members of the President's Cabinet--Secretary of Labor W. Willard Wirtz and Secretary of Health, Education, and Welfare John W. Gardner--were among those who presented their views to the subcommittee. One Highlight of the hearings was the testimony by a 12-member panel, whose membership was especially selected by the subcommittee in order to present the divergent viewpoints on this complex subject.

One of the primary objectives of the hearings was to determine whether uranium miners were being protected by adequate standards and to determine why it was taking so long to establish a standard at the Federal government level. Toward the latter part of the hearings, the Federal Radiation Council--pursuant to the Atomic Energy Act of 1954--transmitted to the President findings and recommendations for the guidance of Federal agencies in the conduct of their radiation protection activities applicable to underground uranium mining. The President approved these recommendations on July 27, 1967.

The two-part, 1373-page record of the hearings constitutes the most comprehensive collection of information ever gathered concerning the exposure of humans to radiation incident to the mining of uranium. In keeping with past practice of the Committee and its subcommittees when dealing with unusually complex problems characterized by strong

differences of opinion among the witnesses, the Committee staff is currently preparing a summary analysis of the hearing record.

C. ABM Hearings and Safeguards

Hearings in open session before the Subcommittee on Military Applications, in conjunction with members of the Preparedness Subcommittee of the Senate Armed Services Committee, were held on November 6 and 7, 1967, with the Honorable Paul H. Nitze, Deputy Secretary of Defense, and Dr. John S. Foster, Director, Defense Research and Engineering, as witnesses for the purpose of bringing the Joint Committee up to date on plans and programs relating to our ABM program with particular emphasis on the scope, magnitude, and implications of the U.S. Program as announced by Secretary of Defense McNamara on September 18, 1967. Other witnesses were:

Professor Philip E. Mosely of Columbia University, an expert on the internal and foreign policies of the Soviet Union;

Dr. Thomas W. Wolfe of the Rand Corporation, analyst of Sino-Soviet affairs;

Mrs. Alice Langley Hsieh of the Rand Corporation, analyst of Communist China's external political and military policies.

D. Chinese Nuclear Weapons

During the year the Committee conducted a special inquiry regarding Chinese Communist nuclear weapons development. Testimony was received in executive session as follows:

January 11, 1967	Richard Helms, Director of the Central Intelligence Agency
February 1, 1967	Dr. Norris Bradbury, Director, Los Alamos Scientific Laboratory
	Dr. Michael May, Director, Livermore Radiation Laboratory
March 13, 1967	Secretary of State Dean Rusk
July 13, 1967	Representatives of the Department of Defense, CIA and AEC.

An unclassified report was prepared as a result of this inquiry entitled Impact of Chinese Communist Nuclear Weapons Progress on United States National Security and published July, 1967. In the Summary the report stated, "The Joint Committee believes that the American public needs to know the threat that is posed by Red China. Communist China has emerged with a fledgling, but effective, nuclear weapons capability."

"Perhaps most significant for the United States is the fact that a low order of magnitude attack could possibly be launched by the Chinese Communists against the United States by the early 1970s. At present we do not have an effective anti-ballistic missile system which could repel such a suicidal (for the Chinese) but nevertheless possible strike."

E. Confirmation Hearings

The Senate Section of the Joint Committee met in public session on June 8, 1967, to consider the nomination (reappointment) of Wilfrid E. Johnson to be a member of the Atomic Energy Commission for a term of five years, expiring June 30, 1972. He was confirmed by the Senate on June 15, 1967.

F. Licensing and Regulation of Nuclear Reactors

The structure and conduct of the AEC's regulatory program has been one of the principal areas of interest of the Joint Committee. In addition to maintaining day-to-day contact with these matters, the Committee has on various occasions conducted detailed reviews of this program. For example, past studies undertaken by the Joint Committee staff at the Committee's direction have ultimately led to major changes in the legislation underlying the AEC's regulatory activities.

It has always been recognized that in a field as dynamic as that of nuclear energy, new problems emerge so rapidly that reconsideration of this subject is desirable from time to time. For this reason, the Committee scheduled a series of hearings in the spring and fall of 1967 pertaining to the licensing and regulation of nuclear reactors.

The first part of the hearings occupied a period of five days in April and May. At that time, the Committee received oral and written testimony from, among other persons, officials of the AEC and representatives of various organizations (that is, the Advisory Committee on Reactor Safeguards and the Atomic Safety and Licensing Board Panel) which participate in the regulatory review process.

Thereafter, the Committee published the record of these hearings under the title "Licensing and Regulation of Nuclear Reactors," Part 1. The Committee also formulated a series of 12 key policy issues to which the Committee would direct its attention in the second phase of the hearings. These issues were set forth in a letter from the Chairman which was sent to a large number of individuals and organizations, soliciting comments on the issues and the hearing record developed to that date.

In September the public hearings resumed, with three additional days of testimony. Those testifying before the Committee included witnesses from investor-owned and publicly-owned electric utilities, equipment manufacturers, members of the general public, representatives of the coal industry and of professional societies, and attorneys engaged in practice before the AEC. Among other things, these hearings disclosed a growing dispute over the right to participate in the ownership and electrical output of large nuclear powerplants; and disagreement concerning the scope of the AEC's regulatory jurisdiction. The September hearings are in the process of being prepared for publication, under the title "Licensing and Regulation of Nuclear Reactors," Part 2.

It is reasonable to expect that, as the result of these hearings, there will be a better mutual understanding of all these matters on the part of the public, the nuclear industry, the Executive Branch and the Congress. Further, it is expected that the complete hearing record will serve as a valuable reference text in future years, particularly to those who are newly acquainted with the regulatory program.

The Committee intends to consider the entire record of these hearings in order to determine what the most appropriate next step may be, including further studies by the Committee and its staff, and possible legislative recommendations.

(III INFORMATIONAL HEARINGS, cont'd)

G. 200 Bev Accelerator

Hearings were held on the AEC request for authorization of $10 million in architect-engineering funds for the proposed 200 Bev Accelerator by the full Committee on February 7-9, 1967.

The Subcommittee on Research, Development and Radiation held hearings on February 15 and 16 for the purpose of exploring with the AEC the management organization to oversee design, construction and operation of the proposed facility and the scope of the accelerator to be constructed. In the Subcommittee's report recommendations were made that:

1) An accelerator with a design intensity of 3×10^{13} protons per pulse be constructed.

2) Provision be made in the initial design of the machine for experimental areas which are consistent with the national scope and purpose of the facility.

3) The AEC give careful study to the possibility of constructing the accelerator so as to permit a possible later increase in energy to 300 Bev or higher.

4) The AEC assure itself that the organization(s) selected for the architect-engineering and construction management of this facility are reliable and experienced and that major design changes and procurements affecting the machine will be made only with AEC approval.

The full Committee accepted without change the Subcommittee's report and recommended authorization of $7,333,000 for the 200 Bev accelerator for Fiscal Year 1968.

IV CLASSIFIED ACTIVITIES

A. ABM and Safeguards

In hearings in executive session on November 8 and 15, 1967, testimony was received on classified aspects of the ABM deployment from:

(IV CLASSIFIED ACTIVITIES, cont'd)

Mr. Richard Helms, Director, Central Intelligence Agency;
General Earle G. Wheeler, Chairman, Joint Chiefs of Staff;
Dr. John S. Foster, Director, Defense Research and Engineering;
Commissioner Gerald F. Tape of the Atomic Energy Commission;
Brigadier General Edward B. Giller, USAF, Director of Military Applications, AEC;
Dr. Raemer E. Schreiber, Technical Associate Director, Los Alamos Scientific Laboratory;
Dr. Harold Agnew, Division Leader, Los Alamos Scientific Laboratory
Mr. J. A. Hornbeck, President, Sandia Corporation; and,
Dr. Michael M. May, Director, Livermore Laboratory.

During these hearings testimony was also heard regarding the implementation of the four safeguards established in connection with the Limited Nuclear Test Ban Treaty.

B. Intelligence Briefings

On January 11, 1967, the Joint Committee received an intelligence briefing on recent developments affecting the field of atomic energy from Mr. Richard Helms, Director of the Central Intelligence Agency. On July 13, 1967, Mr. Helms briefed the Committee concerning advances being made by Communist China in developing nuclear weapons, and on November 8, 1967, he briefed the Subcommittee on Military Applications on foreign activities relating to the U. S. defense posture vis-a-vis potential aggressors.

C. Nuclear Weapons Requirements

A series of hearings in executive session were held by the Subcommittee on Military Applications to consider nuclear weapons requirements. Dr. Alain Enthoven, Assistant Secretary of Defense (Systems Analysis), the principal Defense Department witness, explained Defense policy objectives and nuclear weapon requirements in hearings on February 21 and 23, 1967. General Earle G. Wheeler, Chairman, Joint Chiefs of Staff and Lt. General Austin W. Betts, USA, Chief, Research and Development, and Nike X Systems Manager, testified in subsequent hearings held March 8 and April 11, 1967.

D. AEC Policies on Gas Centrifuge Development

On March 9, 1967, the Joint Committee received a briefing

(IV CLASSIFIED ACTIVITIES, cont'd)

from the Atomic Energy Commission concerning development of the gas centrifuge process, and related matters. AEC representatives discussed the status of foreign and domestic programs in the gas centrifuge field, including Government and private efforts. The various considerations associated with the AEC's present and future policies were considered in depth. Following this meeting, the AEC announced new policies on gas centrifuge development including a determination by the Commission, after careful weighing of all factors involved, that national security interests would best be served if work on the gas centrifuge process for separation of isotopes were limited to Government sponsored projects.

V. OTHER ACTIVITIES

A. IAEA 11th General Conference

The Chairman and three members of the Joint Committee on Atomic Energy participated in the 11th General Conference of the International Atomic Energy Agency in Vienna in September, 1967. One of the principle items discussed in the Conference was IAEA safeguards inspection to assure that fissionable material is not directed to other than peaceful uses in connection with the proposed nuclear weapons non-proliferation treaty.

B. Disarmament Negotiations

On March 13, 1967, the Committee received testimony in executive session from the Secretary of State concerning plans and status of disarmament negotiations with emphasis on the proposed non-proliferation treaty negotiations.

On May 17, 1967, the Committee received testimony in executive session from officials of the U. S. Arms Control and Disarmament Agency concerning the plans and policy position which was to be taken by the U. S. representatives to the Eighteen-Nation Disarmament Conference (ENDC) when it reconvened in Geneva on May 18, 1967.

Throughout the year the Committee received reports on developments concerning disarmament negotiations as they progress. Members of the Committee and staff visited and conferred with U. S. representatives in Geneva at the Eighteen-Nation Disarmament Conference.

V. (OTHER ACTIVITIES, cont'd)

C. Foreign Trips

Foreign inspection and informational visits were made by the Committee and staff as follows:

EURATOM Headquarters, Brussels, Belgium
Frascati Nuclear Center, Frascati, Italy
Geneva Disarmament Negotiations, Geneva, Switzerland
International Atomic Energy Agency, Vienna, Austria
NATO Installations in Germany
NATO Headquarters,
Paris, France
New NATO Headquarters, Brussels, Belgium
Nuclear Ship OTTO HAHN, Kiel, Germany

D. Domestic Installation Trips

The Committee members and staff continued their practice of obtaining firsthand information by visiting various Atomic Energy Commission, Department of Defense, NASA, and U. S. Government contractor installations in the United States. During the first session, 90th Congress, visits were made to the following facilities, among others:

Aerojet General, Azusa, California
Aerojet General, Sacramento, California
Ames Laboratory (NASA), Sunnyvale, California
Atomics International, Downey, California
Charleston Naval Shipyard, Charleston, South Carolina
Electric Boat Division of General Dynamics Corporation,
Groton, Connecticut
Gasbuggy Symposium and Detonation, Farmington, New Mexico
General Electric, APO, Sunnyvale, California
General Electric Company, Vallecitos, California
General Electric Valley Forge (Pennsylvania) Space Laboratory
Gulf General Atomic, LaJolla, California
Hawaii Development Irradiator, Honolulu, Hawaii
Huntington Beach, California (proposed site of Bolsa Island
Power-Desalting Plant)
Laboratory of Nuclear Medicine and Radiation Biology,
University of California at Los Angeles
LaCrosse Boiling Water Reactor Project, LaCrosse, Wisconsin
Lawrence Radiation Laboratory, Livermore, California
Los Alamos Scientific Laboratory, New Mexico

V. (OTHER ACTIVITIES, cont'd)

MIT, Physics Department
NS Savannah, Hoboken, New Jersey
Nuclear Fuel Services, Inc., West Valley, New York
Nuclear Materials and Equipment Corporation, Apollo, Pennsylvania
Oak Ridge National Laboratory, Oak Ridge, Tennessee
Oyster Creek Nuclear Power Station, Oyster Creek, New Jersey
Pacific Missile Range at Barking Sands, Island of Kauia, Hawaii
Pacific Northwest Laboratories, Washington
Piqua Nuclear Power Facility, Piqua, Ohio
Sandia Corporation, Albuquerque, New Mexico
Savannah River Plant, Aiken, South Carolina
Schwartzwalder Uranium Mine, Golden, Colorado
Stanford Linear Accelerator Center, Stanford, California
Thermo-Electron Engineering Corporation, Waltham, Massachusetts
UCLA Laboratory of Nuclear Medicine and Radiation Biology
Walhalla, South Carolina (Atomic Safety and Licensing Board hearings on Oconee Nuclear Station Units 1, 2 and 3)